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EXAMINER	
WONG, LESLIE	
ART UNIT	**PAPER NUMBER**
2164	

DATE MAILED: 01/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/872,938	LYNCH ET AL.	
	Examiner	Art Unit	
	Leslie Wong	2164	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 October 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-43* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-43* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *05/31/2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *11/30/2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. Applicants' Information Disclosure Statement, filed 30 November 2005, has been received, entered into the record, and considered. See attached form PTO-1449.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claim 1-5, 7-9, 13-17, 19-30, 35-36, are 39-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Wheeler et al.** ("Wheeler") (U.S. Patent 6,618,727 B1) in view of **Edlund et al.** ("Edlund") (U.S. Patent 6,718,324 B2).

Regarding claims 1, 13, 21, 24, and 27, **Wheeler** teaches method, apparatus, and article or manufacture, comprising:

a). extensible markup language document, the first representation including a set of terms and one or more weighted values associated with each term in the set of terms (col. 2, lines 36-47; col. 7, lines 56-65; col. 20, lines 36-47 and Fig. 25);

b). generating a linked to each of the one or more related documents (col. 2, lines 21-26).

Wheeler does not explicitly teach generating a list of one or more related documents ranked based upon relevance to a first representation of content.

Edlund, however, teaches **'generating a list of one or more related documents ranked based upon relevance to a first representation of content associated with a first field of a reference'** as the search engine returns search results based on the original query. These search results are typically sorted ascending or descending based on content relevance (col. 8, lines 37-39).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teachings of the cited references because **Edlund's** teaching would have allowed **Wheeler's** to improve the quality of results returned to users by calculating the overall document relevance to provide a ranking system that

performs a ranking based on a combination of relevancy and popularity as suggested by **Edlund** at col. 3, lines 43-53.

Regarding claims 2 and 3, **Wheeler** further teaches wherein the first field in the reference extensible markup language document is specified at the time a query is generated (col. 2, lines 42-44).

Regarding claims 4 and 14, **Wheeler** further teaches wherein the reference extensible markup language document is selected form a group of documents in a database (i.e. source database) (col. 2, lines 39-42).

Regarding claim 5, **Wheeler** further teaches wherein submitting the reference extensible markup language document to an engine for analysis (col. 9, lines 52-65).

Regarding claim 6, **Wheeler** does not explicitly teach wherein the link is a hypertext link.

Edlund, however, teaches wherein the link is a hypertext link (col. 3, lines 54-60).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teachings of the cited references because **Edlund's** teaching would have allowed **Wheeler's** to easily and conveniently access to desired documents.

Regarding claim 7, **Wheeler** further teaches wherein the second field of the related document contains semantically similar content to the content associated with the first field of the reference extensible markup language document (col. 11, lines 10-18).

Regarding claims 8, 20, 28, and 41, **Wheeler** further teaches executing a query on the reference extensible markup language document to generate the list and the link without a user having to request the query (col. 19, lines 60-64 and Fig. 24).

Regarding claim 9, **Wheeler** further teaches wherein the list further includes references to relevant fields within each related document (Fig. 21G).

Regarding claim 15, **Wheeler** further teaches a database containing a plurality of representations, each representation being associated with content in a particular field in an extensible markup language document (Fig. 24 and col. 19, lines 60-65).

Regarding claim 16, **Wheeler** further teaches wherein the engine adjusts the one or more weighted values for each particular term in the set of terms by a comparison to a historical weighted value associated with each particular term in the set of terms (col. 12, line 60- col. 13, line 8).

Regarding claim 17, **Wheeler** further teaches a converter to convert a non-extensible markup language document into an extensible markup language format (col. 9, lines 56-65).

Regarding claim 19, **Wheeler** further teaches wherein the engine has a module to compare the first representation to a plurality of representations in a database in order to identify documents that are most similar to the first representation (Figs. 24 and 25; col. 19, lines 60-65; col. 20, lines 36-47).

Regarding claims 22 and 25, **Wheeler** further teaches wherein the reference extensible markup language document has a first extensible markup language schema, and a first related extensible markup language document has a second extensible markup language schema (col. 9, lines 56-65).

Regarding claims 23 and 26, **Wheeler** further teaches the steps of:

a). identifying a first representation of content associated with the reference extensible markup language document, the first representation including a fist set of terms and one or more weighted values associated with each term in the first set of terms (i.e., suspect's height weight 50%) (col. 11, lines 55-63);

b). identifying a second representation of content associated with a second field in a fist related extensible markup language document, the second representation including a second set of terms and a second weighted value associated with each term

in the second set of terms (i.e., suspect's weight and hair color weight 25%)(col. 11, lines 55-63).

Regarding claims 29, 30, 35, 36, 39, and 40, **Wheeler** teaches a method, comprising:

a). executing a query on content from a active desktop window without a user having to request the query (col. 19, lines 60-64 and Fig. 24).

c). generating links to the documents (col. 2, lines 21-26).

b). **Wheeler** does not explicitly teach generating a list of one or more related documents ranked based upon relevance to a first representation of content.

Edlund, however, teaches **'generating a ranked list of documents related to the content based on the content in the active desktop window'** as the search engine returns search results based on the original query. These search results are typically sorted ascending or descending based on content relevance (col. 8, lines 37-39).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teachings of the cited references because **Edlund's** teaching would have allowed **Wheeler's** to improve the quality of results returned to users by calculating the overall document relevance to provide a ranking system that performs a ranking based on a combination of relevancy and popularity as suggested by **Edlund** at col. 3, lines 43-53.

4. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Wheeler et al.** ("Wheeler") (U.S. Patent 6,618,727 B1) in view of **Edlund et al.** ("Edlund") (U.S. Patent 6,718,324 B2) as applied to claims 1-5, 7-9, 13-17, 19-30, 35-36, are 39-41 above and in view of **Schuetze** (U.S. Patent 5,675,819).

Regarding claim 10, **Wheeler** and **Edlund** do not explicitly teach wherein the set of terms includes singular terms and higher order terms.

Schuetze, however, teaches wherein the set of terms includes singular terms and higher order terms (col. 13, lines 5-21).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teachings of the cited references because **Schuetze's** teaching would have allowed **Wheeler- Edlund's** to assign the ranking for relevant terms more effectively.

5. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Wheeler et al.** ("Wheeler") (U.S. Patent 6,618,727 B1) in view of **Edlund et al.** ("Edlund") (U.S. Patent 6,718,324 B2) as applied to claims 1-5, 7-9, 13-17, 19-30, 35-36, are 39-41 above and in view of **Kirsch et al. ("Kirsch")** (U.S. Patent 5,983,216).

Regarding claim 11, **Wheeler** and **Edlund** do not explicitly teach wherein the set of terms includes singular terms and noun phrases.

Kirsch, however, teaches wherein the set of terms includes singular terms and noun phrases (claim 2, a).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teachings of the cited references because **Kirsch's** teaching would have allowed **Wheeler- Edlund's** to apply the apply the selected single terms and noun phrases to the meta-index descriptive of the document collections to determine the cumulative rankings for the documents.

Regarding claim 12, **Wheeler** and **Edlund** do not explicitly teach wherein the set of terms includes higher order terms and proper names.

Kirsch, however, teaches wherein the set of terms includes higher order terms and proper names (claim 2, limitation d).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teachings of the cited references because **Kirsch's** teaching would have allowed **Wheeler- Edlund's** to apply the apply the selected single terms and noun phrases to the meta-index descriptive of the document collections to determine the cumulative rankings for the documents.

6. Claims 18, 33, 34, 38, and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Wheeler et al.** ("Wheeler") (U.S. Patent 6,618,727 B1) in view of **Edlund et al.** ("Edlund") as applied to claims 1-5, 7-9, 13-17, 19-30, are 39-41 above and in view of **Agrawal et al. ("Agrawal")** (U.S. Patent 5,675,819).

Regarding claims 18, 33, 38, and 43, **Wheeler** and **Edlund** do not explicitly teach wherein the non-extensible markup language document is content associated with an e-mail, content associated with a web page, or content associated with a software application.

Agrawal, however, teaches wherein the non-extensible markup language document is content associated with an e-mail, content associated with a web page, or content associated with a software application (col. 1, lines 13-25).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teachings of the cited references because **Agrawal's** teaching involves organizing repositories of documents such as emails and web pages in folders, and the folders can be arranged in a tree-like hierarchy structure would have allowed **Wheeler- Edlund's** to process variety types of documents in order to provide a more flexible system for user to manage and organize documents in an easy and effective manner.

Regarding claim 34, **Wheeler** and **Edlund** do not explicitly teach clearly teach wherein the active desktop window is running an e-mail application.

Agrawal, however, teaches wherein the active desktop window is running an e-mail application (col. 4, lines 14-22).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teachings of the cited references because

Agrawal's teaching would have allowed **Wheeler- Edlund's** to have a means to collect and process variety types of unstructured or semi-structured documents.

7. Claims 31, 32, 37, and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Wheeler et al.** ("Wheeler") (U.S. Patent 6,618,727 B1) in view of **Edlund et al.** ("Edlund") as applied to claims 1-5, 7-9, 13-17, 19-30, are 39-41 above and in view of **Jeffrey** (US 20030084040A1).

Regarding claims 31, 32, 37, and 42, **Wheeler** and **Edlund** do not explicitly teach wherein the probabilistic algorithm uses a Bayesian model.

Jeffrey, however, teaches wherein the probabilistic algorithm uses a Bayesian model (paragraph 19).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teachings of the cited references because **Jeffrey's** teaching involves document retrieval for wide ranges of subject matter, such as exhibited by the Internet, general libraries, and other broad-coverage information collections and comparing documents includes segmenting a judgment matrix into a plurality of information sub-matrices where each sub-matrix has a plurality of classifications and a plurality of terms relevant to each classification would have allowed **Wheeler- Edlund's** to effectively calculate the probability of the relevant terms for the target documents in order to produce more accurate results.

Response to Argument

8. Applicants' arguments filed 31 October 2005 have been fully considered but they are not persuasive.

Applicants argue that Edlund merely discloses an Internet search engine that ranks results of the search based on relevance to the user. Edlund does not disclose that the list of related documents is based on relevance to a first representation of content associated with first field of a reference XML document. Edlund uses the criteria of tracked characteristic of a user to determine a relevance rating. Edlund does not disclose basing relevance on content associated with a document. Also Edlund explicitly mentions that the Internet is made up web site using the HTML format. Further, html format is the only markup language disclosed by Edlund. Hence, Edlund is completely silent on extensible markup language ("XML") documents.

In response to the preceding arguments, Examiner respectfully submits that Edlund teaches the claimed limitation "the list of related documents is based on relevance to a first representation of content associated with first field of a reference document" as the search engine returns search results based on the original query (i.e., first representation of content) (col. 8, lines 37-38). The search engine can be any kind of standard search engine. A search engine essentially will calculate the content relevance, and return a list of search results ranked based on this content relevance (i.e., relevance on content associated with a document)(col. 8, lines 28-32). As for the limitation "XML document", in the office action dated July 23, 2005, Examiner stated that

Wheeler teaches the XML document limitation in col. 2, lines 36-47. Wheeler further teaches the above limitation as the client 35 translates the client command, which may be a query, a user administration function, document import or schema creation a command, and any associated data into a data description language, called Extensible Markup Language (XML). The XML data description language is helpful in allowing user to model data hierarchically (col. 9, lines 57-63).

Applicants argue that Wheeler fails to disclose "generating a list of one or more related documents ranked based upon relevance to a first representation of content associated with a first field of a reference extensible markup language document." In fact, the Examiner specifically states "Wheeler does not explicitly teach generating...". Additionally, Applicants contends that even if Wheeler and Edlund were combined, such a combination would lack "generating a list of one or more related documents ranked based upon relevance to a first representation of content associated with a first field of a reference extensible markup language document."

In response to the preceding arguments, Examiner respectfully submits that Edlund teaches the claimed limitation "generating a list of one or more related documents ranked based upon relevance to a first representation of content associated with a first field of a reference document" as indicated from the above paragraph. Edlund does not explicitly teach the limitation "XML document". Wheeler teaches the limitation XML document at col. 9, lines 57-63. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to

combine the teachings of the cited references because Edlund 's teachings of incorporating a document relevance measure by content relevance (e.g., matching of query search terms to words in document) would have allowed **Wheeler's** to improve the quality of results returned to users by calculating the overall document relevance to provide a ranking system that performs a ranking based on a combination of relevancy and popularity.

Applicants' claim recites

> "generating a list of one or more related documents ranked based upon relevance to a first representation of content associated with a first field of a reference extensible markup language document, the first representation including a set of terms".

Edlund teaches **'generating a list of one or more related documents ranked based upon relevance to a first representation of content associated with a first field of a reference'** as the search engine returns search results based on the original query. These search results are typically sorted ascending or descending based on content relevance (col. 8, lines 37-39).

Wheeler teaches **'extensible markup language document, the first representation including a set of terms and one or more weighted values associated with each term in the set of terms'** as the client 35 translates the client command, which may be a query, a user administration function, document import or schema creation a command, and any associated data into a data description language,

called Extensible Markup Language (XML). The XML data description language is helpful in allowing user to model data hierarchically (col. 9, lines 57-63) (col. 2, lines 36-47; col. 7, lines 56-65; col. 20, lines 36-47 and Fig. 25).

Wheeler is directed to similarity search engines that allow for efficiently searching very large source database to be searched uses a hierarchy of parent and child categories. **Edlund** is drawn to Internet Search Engines which produce useful results ranked and sorted by usefulness to the searching web surfer utilizes a combination of popularity and/or content relevancy to determine a search ranking for a given search results association. Both prior arts teach similar subject matters and are in the same field of endeavor of the claimed invention. Therefore, it is submitted that combining **Wheeler** and **Edlund** would have arrived at the claimed invention.

Applicants argue that Wheeler does not suggest a combination with Edlund, and Edlund does not suggest a combination with Wheeler because Wheeler specifically teaches away from such a combination. It would be impermissible hindsight to combine Wheeler with Edlund based on Applicants' own disclosure.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a

reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). Further, Applicants are requested to explain specifically how the Wheeler reference teaches away from the Applicants' invention in order for the Examiner to address the arguments properly. Applicants are also reminded that in order to disqualify a reference based on a "teach away" reasoning, the reference has to *explicitly* suggest or disclose the so-called teach away steps – Applicants assertion can not be accepted if it is unsupported by a valid evidence.

Applicants argue that Wheeler does not disclose that the query is run without a user having to request the query. In fact Wheeler discloses that the user must initiate the query. Applicants submit that a first document that is annotated with a scoring algorithm which becomes a query used to search a second document is not the same as executing a query on content from an active desktop window without a user having to request the query. Therefore, Wheeler fails to disclose this limitation of independent claims 29, 35, and 39.

In response to the preceding arguments, Examiner respectfully submits that the limitation the query is run without a user having to request the query as the annotated first document becoming a query which used to search a second document. The query is stored in a hierarchical language format having parent and child objects (col. 19, lines 62-65). The **document compare function "walk through" the query** (i.e., query run without a user) and finds leaf nodes in the query that contain the search criteria (col. 19, line 67 – col. 20, line 1). Using the search criteria in the query leaf

node, the second document is examined to determine if the search criteria in the leaf node is found within an object in the document (col. 20, lines 9-12). Hence, Wheeler teaches "the query is run without a user having to request the query" as claimed because the user does not execute or request to run the *second query*, but the system processes the second query based on the annotation of the first query.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leslie Wong whose telephone number is (571) 272-4120. The examiner can normally be reached on Monday to Friday 9:30am - 6:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, CHARLES RONES can be reached on (571) 272-4085. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Leslie Wong
Primary Patent Examiner
Art Unit 2164

LW
January 16, 2006